

Heirisson Island during 1962-63. This is their southernmost known limit (vide Serventy and Whittell).

White-fronted Chat, *Epthianra albifrons*.—Found only in the warmer months. The range being one to 20 though I have seen 40 on Heirisson Island.

#### ACKNOWLEDGEMENTS

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### BIRDS OF THE GIBB ROCK AREA

By E. H. SEDGWICK

#### Summary

An annotated list of 89 species identified at Gibb Rock 309 km just south of east of Perth, between 1966 and 1973, with more detailed notes on the effects of progressive farm development on the status of particular species as the originally virgin sandplain-mallee habitat becomes modified.

#### GENERAL DESCRIPTION OF AREA UNDER CONSIDERATION:

Gibb Rock is 61 kilometres E.S.E. of Narembecn and 32 kilometres N.N.E. of Hyden.

Just south of Gibb Rock is 'Sedgmoor', Location 2672, the property in which the writer is interested. This was acquired and has been developed by Malcolm C. Sedgwick (M.C.S.). It was in a primitive state—typical sandplain-mallee country. A shed was built and clearing commenced in late 1966 and 200 hectares of crop put in in May, 1967. The first dam was put down in 1969, but remained dry until filled by summer rains in February, 1970. At the time of writing, 810 hectares—nearly half of the property—have been cleared and cultivated.

An unusual feature of the farm is a natural soak, almost circular and 1.3 hectares in area. As this soak at times provides almost a hectare of open water, it is probable that the original avifauna included water-frequenting birds of several species which would not have occurred if the soak had not been there.

Landmarks mentioned are: The Humps, 17 kilometres S.S.W., Wave Rock, 29 kilometres in the same direction; Holleton, 27 kilometres N. and Mount Walker, 27 kilometres W.N.W.

#### NATURAL VEGETATION OF MAIN STUDY AREA:

Vegetation is of the mallee-scrub-plain type. Salmon Gum (*Eucalyptus salmonophloia*) and Wandoo (*Enc. wandoo*) occur very sparingly and there are thickets of Gimlet (*Enc. salnbris*). Mallee forms, occurring mainly in loose, scattered, clumps, are Tall Sandplain Mallee (*Enc. eremophila*, Lerp Mallee (*Enc. incrassata*), Oldfield's Mallee (*Enc. oldfieldi*) and Morrel (*Enc. longicornis*).

*Casuarina acutivalvis*, locally known as Wodjil, dominates considerable areas in which mallecs do not occur. Shrubs of the Family Myrtaceae form another dominant element.

Other plants occurring in the area are: *Acacia graffiana*, *A. merrallii*, *A. multispicata*, *Exocarpos aphyllus*, *Grevillea hookeriana*, *G. shuttleworthiana*, *Hakea coriacea*, *H. falcata*, *H. platysperma*, *Comesperma volubile*, *Dryandra* (sp.), *Astartea heteranthera*, *Thryptomene kochii*, *Micromyrtus imbricata*, *Chamaelaucium megalopetalum*, *Verticordia acerosa*, *V. chrysantha*, *V. insignis*, *Calytrix ?brachyphylla*, *Beaufortia micrantha*, *Mirbelia floribunda*, *Hibbertia exasperata*, *Leucopogon woodsii*, *L. dielsianus*, *Brachylosum concolor*, *Eremophila drummondii*, *Phebalium filifolia*, *P. tuberosum* var. *tuberosum*, *Synaphea* (sp.), *Drummondita hassellii*, *Pimelea angustifolia*, *P. sylvestris*, *Olearia muelleri*, *Dampiera wellsiya*, *Leschenaultia formosa*, *Drosera macrantha*, *Caladenia cairnsiana*, *C. roei*, *C. saccharata*, *C. filamentosa*, *Pterostylis vittata*.

This list is not exhaustive, of course. Specimens of plants, in blossom where possible, were collected from the area being cleared, as opportunity offered, in a largely random manner.

OBSERVED ORDER OF APPEARANCE OF FARMLAND SPECIES  
FOLLOWING CLEARING AT 'SEDGMOOR'

Welcome Swallow	—	March 1967
Australian Bustard	—	March 1967
White-fronted Chat	—	March 1967
Western Magpie	—	March 1967
Banded Plover	—	May 1967
Australian Pipit	—	August 1967
Willy Wagtail	—	August 1967
Hooded Robin	—	May 1968
Stubble Quail	—	December 1968
Australian Dotterel	—	May 1969
Chestnut-breasted Shelduck	—	March 1970
White-faced Heron	—	May 1970
Brown Songlark	—	September 1970

Since 1966 the writer has visited the property at least twice annually, the two principal visits in each year being in May and in late August and early September, so that most of his personal observations are confined to those periods.

ACKNOWLEDGEMENTS

Assistance from the officers of the Western Australian Herbarium who identified specimens of plants taken in the area cleared for cultivation, and from my son, Lindsay Sedgwick, who provided information on the Eucalypts which he had collected in this area, is gratefully acknowledged.

LIST OF SPECIES

Emu, *Dromains novaehollandiae*.—Single birds and parties of up to twelve have been seen from time to time. A disused nest with two intact eggs and a few egg shells was found in mallee scrub in September 1972.

Little Grebe, *Podiceps novaehollandiae*.—In May 1971 a few birds were present on the large soak on "Sedgmoor" which had been filled by heavy rains in March. As partly submerged tea-tree provided ample cover, the number present could not be determined. The birds were calling frequently. When I revisited the area in August, Little Grebe were present and calling.

Hoary-headed Grebe, *P. poliocephalus*.—In May 1968 one bird was seen on a dam between Narembeen and Mt. Walker. Two birds in breeding plumage were present on a dam at Holleton on September 5, 1971.

White-faced Heron, *Ardea novaehollandiae*.—On August 29, 1968, I encountered one bird by a temporary pool at the foot of Mt. Walker. I first saw herons at "Sedgmoor" on May 18, 1970. These two birds were in flight, but had probably been at the dam put down in 1969, but dry until February 1970.

Chestnut-breasted Shelduck, *Tadorna tadornoides*.—Observed, usually by dams, on the well established farms between Narembeen and Mt. Walker, but not seen at "Sedgmoor" until early 1970 when M.C.S. recorded two at the dam mentioned in the previous note. Two birds were again recorded in May 1972.

Grey Teal, *Anas gibberifrons*.—Noted by a dam on farmland between Narembeen and Mt. Walker on March 27, 1967 and first seen at "Sedgmoor" on May 17, 1971 when I found c. 200 birds on the Soak, which had been filled by cyclonic rains in late March. These birds were easily alarmed and flushed several times while I was working in the vicinity. The following day they were gone, but on May 25 birds were again present. On August 2, only two birds could be seen and these took cover in the partly submerged tea-trees.

Maned Goose, *Chenonetta jubata*.—In 1968, I flushed c. 20 birds from a roadside pool c. 5 kilometres west of "Sedgmoor" and a week later saw three birds by a dam c. 5 kilometres west of Mt. Walker. In

September, I saw three birds in flight c. 10 kilometres south of "Sedgmoor".

Black-shouldered Kite, *Elanus notatus*.—Two birds seen over "Sedgmoor" in September 1967 were probably of this species. M.C.S. identified the species definitely early in 1970 when he observed one hovering over the farmland. Others have been noted between Mt. Walker and Naremben.

Collared Sparrowhawk, *Accipiter cirrocephalus*.—One bird observed on a heap of roots in the farmyard on August 30, 1968. Almost certainly a cock bird, it appeared quite small in contrast with a Raven perched nearby.

Little Eagle, *Hieraaetus morphnoides*.—A bird seen at a distance on September 3, 1968 was apparently of this species.

Wedge-tailed Eagle, *Aquila audax*.—M.C.S. reported two rather light coloured birds at "Sedgmoor" on March 1, 1969. On August 30, 1970, I saw one bird over the uncleared part of the property and two days later saw one bird rather persistently pursuing a *Corvus* over one of the sheep paddocks. On August 23, 1969, I flushed one bird from the roadside near the Humps, a rock outcrop between Hyden and Gibb Rock.

Spotted Harrier, *Circus assimilis*.—One was seen on May 16, 1970, flying low over a sheep paddock. On May 17, 1972, one bird was observed in the same area.

Little Falcon, *Falco longipennis*.—One bird noted in a tree 13 kilometres east of Naremben on May 20, 1967.

Brown Hawk, *F. berigora*.—One bird was noticed on "Sedgmoor" shortly after clearing commenced and by May 1967 had become very confiding, permitting an approach to within five metres. The following May two birds were present and taking a keen interest in farming operations. However by August 1968 neither bird could be located. This pair was replaced early in 1969 by a bird lighter in colour than the original one and much more wary. This, or a similar bird, is still present.

Kestrel, *F. cenchroides*.—These birds occur throughout the general area. I first recorded one on the farm in May 1967 and have since seen individuals occasionally during both May and August visits. The presence of these birds in August is not surprising, but I would not have expected them in this part of the wheatbelt in May.

Mallee-fowl, *Leipoa ocellata*.—In September 1966 we obtained good views of single birds by the roadside near Hyden. None has been seen on the farm, but I have located five nests within, or adjacent to, the boundaries. All were in fair order, but I have no evidence of recent use. M.C.S. has seen a bird of this species ten kilometres to the north-west of the farm on the Gibb Rock road and another bird sixteen kilometres to the south-west.

Stubble Quail, *Coturnix pectoralis*.—This species was first noted on December 29, 1968. While working in the wheat crop we located a walnut-sized chick, still in the down, but active. When pressed, it 'froze' and when touched it closed its eyes. We found a nest in a clump of mallee suckers. This contained the shells of two eggs apparently hatched normally. Since that time birds appear to have been present on cultivated areas, but in fluctuating numbers. In late August 1969 birds were calling both day and night, particularly about the time of the full moon on August 27. Observations since made at the same period indicated no activity in 1970 and 1972 and only daylight activity in 1971.

Little Quail, *Turnix velox*.—A bird seen by vehicle headlight as it moved from a fallow into a shelter belt appeared rather small and could have been of this species. On August 27, 1972, I saw three small quail in an aviary on Mr. Wm. Lang's Gibb Rock property. One bird was larger than the other two, presumably a female. At least one had a distinct white median stripe on the crown. The birds lacked a hind toe. They had been taken locally, from the same nest, in a crop.

Australian Bustard, *Eupodotis australis*.—On March 24, 1967, I noted the remains of a bird apparently killed by poachers at a camp near Gibb

Rock. In May 1968 pairs of birds appeared on "Sedgmoor" and on an adjacent property. Mr. A. Powell, the owner, was anxious to preserve his birds and urged us not to shoot ours! M.C.S. observed that at "Sedgmoor" the birds appeared from the scrub-plain to the south, usually late in the afternoon. In August 1969 two birds were again appearing in the same area. In August 1960, M.C.S. reported two birds on another part of the property and further records were made in the summer of 1970-71. This limited evidence suggests spring-summer occurrences. One was flushed from a sheep paddock in September 1972. A little previously, thirteen birds had been seen on Mr. Powell's property.

Banded Plover, *Zonifer tricolor*.—Plovers appeared on the farm shortly after the completion of the initial clearing operations. Seven birds were present on newly ploughed land in May 1967. Birds have remained without marked increase in numbers. A nest with four eggs was located on August 21, 1971 and young chicks recorded on May 24 and 25, 1971. A young bird was noted in early September 1972.

Australian Dotterel, *Peltohyas australis*.—On September 3, 1968, I saw two birds at the roadside six kilometres south of "Sedgmoor" and in the following May M.C.S. reported the species present on cultivated land on the farm. I saw one. Thereafter birds have been seen frequently in flocks of up to twenty and perhaps even more. Mating was observed in May, nests with eggs in February, April, May and June, downy chicks in May, June and September and distraction display in February, May and August, suggesting that breeding occurs from February to September inclusive. It appears possible that breeding is triggered by falls of rain, but further data on this are desirable.

White-headed Stilt, *Himantopus himantopus*.—In late August 1968 we located three birds on salt pans just east of Narembcen.

Southern Stone-Curlew, *Burhinus magirostris*.—Two calls—not a sequence—which I attributed to this species, were heard in the early hours of August 27, 1972, a moon-lit night, Mr. Wm. Lang of Gibb Rock, has heard these birds on two occasions and once encountered two, an adult and a young bird, 16 kilometres to the south. He captured the young bird for examination.

Common Bronzewing, *Phaps chalcoptera*.—In March and May 1967 I saw birds in the vicinity of the farm and, in August, on the farm. Since then we have seen them from time to time, usually on cultivated land adjacent to scrub-plain. Birds have also been seen at the Humps.

Crested Pigeon, *Ocyphaps lophotes*.—Parties of up to at least twelve have been noted throughout the district. The first record for the farm was on September 2, 1969, when two flew from a fallow and perched in the southern boundary fence. It is possible that the birds occur in above average density in the vicinity of the Mount Walker wheat bin.

Purple-crowned Lorikeet, *Glossopsitta porphyrocephala*.—First noted at "Sedgmoor" in March 1967 and recorded in the vicinity from time to time during 1967-68-69.

White-tailed Black Cockatoo, *Calyptorhynchus bairdii*.—On September 3, 1969, c. twelve birds flew over the farm.

Red-tailed Black Cockatoo, *C. banksi*.—M.C.S. has observed that both species of black cockatoo occur near Narembcen.

Galah, *Cacatua roseicapilla*.—Galahs are fairly frequent on the established farms in the district. So far only single birds or small flocks have visited "Sedgmoor", the first recorded appearing over the cleared area in August 1967.

Regent Parrot, *Polytelis anthopeplus*.—Our records are few—one on May 13, 1967 sixteen kilometres east of Narembcen, one on or about September 1, 1967 in flight over the cleared portion of the farm and birds were thrice noted in flight over the farm between August 23 and September 2, 1969.

Western Rosella, *Platycercus icterotis*.—Noted twenty-one kilometres east of Narembcen and, one bird, just south of "Sedgmoor".

Port Lincoln Parrot, *Barnardius zonarius*.—Occurs in both developed and undeveloped areas—mainly mallee—but is not particularly frequent.

Mulga Parrot, *Psephotus varius*.—Noted at Mount Walker and in mallee just south of "Sedgmoor".

Elegant Parrot, *Neophema elegans*.—Recorded five kilometres west of Hyden and, sparingly, between Narembeen and Gibb Rock.

Pallid Cuckoo, *Cuculus pallidus*.—Heard and seen in August-September 1967, heard calling in August-September 1968 and seen at Hyden in September 1972. Most records were made where cleared land adjoined bushland.

Fantailed Cuckoo, *Cacomantis pyrrhophanus*.—Noted, calling, in Gibb Rock area in September 1968, May 1969, August 1969, August-September 1970 and May 1971. In August 1970, I noted this species at the Humps also.

Narrow-billed Bronze Cuckoo, *Chrysococcyx basalis*.—Seen and heard in August 1967. Noted calling in September 1968, August 1969, August-September 1970 and August 1971, always in uncleared areas. This species was also recorded at the Humps in August.

Boobook Owl, *Ninox novaeseelandiae*.—M.C.S. reported a bird roosting in the farm shed. Pellets and excreta were present on a truck which had been standing under one of the roof transoms.

Winking Owl, *N. connivens*.—On September 6, 1968 while walking through a stand of gimlet (*Eucalyptus salubris*) and mallee along the northern boundary of the farm, I flushed two birds from, I think, a height of one metre or less. I could not relocate them. One evening, at a later date, I heard calls from the same area.

Barn Owl, *Tyto alba*.—In May 1970, while driving after dark, owls were twice seen on a sub-dividing fence on the farm. In September 1970, a bird was flushed on a neighbour's property. When we returned about thirty minutes later, a bird again rose from a fence post.

Tawny Frogmouth, *Podargus strigoides*.—A bird flushed in the deep dusk from farmland was probably of this species and in August 1971, I flushed two birds from the ground in mallee adjacent to the farm.

Spotted Nightjar, *Eurostopodus guttatus*.—During the evening of August 31, 1968, I heard calls of this species from scrubland adjacent to the farm. On August 30, 1970, I twice flushed a bird from mallee with undergrowth of shrubs. M.C.S., on November 7, 1971, located and photographed a bird sitting on one egg in the same general area.

Rainbow bird, *Merops ornatus*.—In late December 1967 birds were in evidence in and about a patch of native vegetation left in one of the farm paddocks. No further records have been made.

White-backed Swallow, *Cheramoeca leucosternum*.—On September 6, 1966 one bird was seen just west of Hyden, near a sandy excavation. In May 1968, a few were seen, associated with Tree Martins, over "Sedgmoor" and in August 1968 two birds were seen travelling over farmland.

Welcome Swallow, *Hirundo neoxena*.—In March 1967 birds were present in the farm shed and were hawking over adjacent scrub-plain. Since that time birds have been about the shed, usually only one or two at a time. An unsuccessful breeding attempt was made in August-October 1971.

Trec Martin, *Petrochelidon nigricans*.—At dusk on May 26, 1967, a considerable number of birds, almost certainly of this species, drifted across the scrub-plain. In late August 1967, the species was definitely recorded at "Sedgmoor" and in May 1968, individuals were observed with White-backed Swallows, as noted above. Birds have also been seen at the Humps and at Holleton.

Australian Pipit, *Anthus novaeseelandiae*.—In March 1967, birds were noted between Narembeen and Gibb Rock. In August 1967, birds were observed on the farm and by May the following year were well-distributed. Since that time birds have been numerous in the cleared areas. In September 1970, I located a nest with three eggs in a wheat crop.

Black-faced Cuckoo-shrike, *Coraciua novaehollandiae*.—Birds noted occasionally, mainly in uncleared areas, and once at the Humps.

Southern Scrub-robin, *Drymodes brunneopygia*.—First noted on September 7, 1966, when I was making my first inspection of the block. Its presence in numbers was confirmed in March 1967. Clearing has driven the species from the farmland, but it is still a frequent species in uncleared areas. M.C.S. located a nest with one egg on September 2, 1967. We have also noted the species at Holleton.

White-browed Babbler, *Ponatoronius superciliosus*.—This is another species noted on the initial visit to "Sedgmoor". Other records have been made since on or near the farm, between Narembeen and Gibb Roek, at the Humps and in *Eucalyptus* forest at Holleton.

Brown Songlark, *Cincorhamphus cruralis*.—Noted only in September 1970 when a bird appeared in the wheat crop. Its call seemed rather tentative and weak. Later the bird—a cock—was seen perched on a fence post.

Blue-breasted Wren, *Malurus pulcherrimus*.—Located from time to time on uncleared parts of the property and once in a shelter belt of native vegetation. This species was also noted at Holleton. All records have been made during my August-September visits, but this may not be significant.

Western Warbler, *Gerygone fusca*.—Calling at the Humps on August 29, 1970.

Broad-tailed Thornbill, *Acanthiza apicalis*.—This has proved one of the most frequent species in uncleared areas and one which has a tendency to persist while any cover remains. A few remain in the shelter belts. A nest with two eggs was located on August 25, 1969. This species was noted at Holleton.

Chestnut-tailed Thornbill, *A. uropygialis*.—Noted in *Eucalyptus salmonophloia* forest at the Humps, but its presence at Gibb Roek has still to be confirmed.

Yellow-tailed Thornbill, *A. chrysorrhoa*.—This species occurs in forest at the Humps, near Hyden, and on the farmlands east of Narembeen, but has not yet been located at Gibb Roek.

Weebill, *Suicrorus brevirostris*.—Weebills were noted on our initial visit to the farm block. They are encountered consistently wherever eucalypts grow. Weebills are present at Holleton, the Humps, and Wave Roek also.

Shy Ground Wren, *Hylacola cauta*.—This was one of the first species noted, on September 6, 1966. My only other encounter was on September 6, 1970. In both instances the birds were in scrub-plain vegetation and permitted a close approach. Indeed, in the first instance the birds spent some time observing us closely.

Field Wren, *Calamanthus fuliginosus*.—This was almost certainly the most frequent species on the farm. These birds disappear when the land is cleared, but they desert only in the last stages of clearing: while any cover remains, e.g. in areas chained and burned, they persist. Shelter belts provide them with adequate cover. In May 1967 I twice observed birds taking bread from our camp rubbish heap. Usually a bird picked up a beakful and ran to the adjacent scrub.

White-fronted Chat, *Epthianura albifrons*.—These birds appeared on the farmland as soon as cultivation commenced. We recorded them on burned areas, but they appear to favour the cultivated land and have increased in frequency, flocks of c. 20 birds being encountered.

Crimson Chat, *E. tricolor*.—These birds appeared and were recorded by M.C.S. in September 1970. They frequented the roadside along the western boundary of the farm. There were twelve to fifteen birds. They remained until early 1971 and probably disappeared at the onset of the winter rains. They were noted by two neighbours on farm properties to the west as 'strangers' in the area, so it would appear that there were at least three flocks in the vicinity.

Brown Flycatcher, *Microeca leucophaea*.—Not yet sighted, but while working near the northern boundary of the farm on May 27, 1971, I heard a 'peter-peter' call which I attributed to this species.

Red-capped Robin, *Petroica goodenovii*.—First recorded on May 17, 1968—a bird calling on the edge of a clearing. In May 1969 a bird was calling from one of the shelter belts and in May 1972 one was perched on a fence beside a shelter belt. I have recorded the species in salmon gum forest at the Humps.

Hooded Robin, *P. cinctillata*.—On May 18, 1968, I encountered a pair of Hooded Robins flitting from heap to heap of stacked roots in a newly cleared paddock. In May 1971, a hen bird was present near the house, frequenting mainly the posts of the farmyard fence, and in May 1972 a cock bird was observed on a fence near the homestead dam.

Western Yellow Robin, *Eopsaltria griseogularis*.—Recorded in mallee adjacent to the farm on three occasions—August 1969, August 1970 and August 1971. The fact that all are August records is probably not significant: work pressures are less in August than in May.

Grey Fantail, *Rhipidura fuliginosa*.—Noted in mallee adjacent to the farm on September 1, 1968 and on May 22, 1969. On August 29, 1970, I encountered the species in forest undergrowth at the Humps.

Willy Wagtail, *R. leucophrys*.—In August 1969, I located two birds in undisturbed mallee just south of the farm and in August 1971, I again located two birds in the same area. Two birds took up residence near the house, which had been occupied since the previous October, at some time prior to May 15, 1971. However, I did not see these in August. There was a pair at the soak, which is surrounded by a belt of mallee. In May 1972, a pair was again present at the house and there appeared to be at least two other pairs on the developed portion of the farm. In August 1970, I recorded the species at the Humps.

Golden Whistler, *Pachycephala pectoralis*.—These birds occur in mallee adjacent to the farm.

Rufous Whistler, *P. rufiventris*.—Recorded in salmon gum forest at the Humps on August 29, 1970.

Western Shrike-Thrush, *Colluricincla rufiventris*.—Noted in mallee on and adjacent to the farm on a number of occasions. It also occurs at the Humps in salmon gum forest.

Crested Bellbird, *Oreoica gutturalis*.—Apparently fairly widespread in scrub plain areas both on and adjacent to the farm. Also recorded at the Humps.

Red-tipped Pardalote, *Pardalotus substriatus*.—Recorded in mallee on a number of occasions during both May and August visits. I have recorded the species at the Humps and at Holleton also.

Brown Honeyeater, *Lichmera indistincta*.—Noted fairly frequently in mallee areas on or adjacent to the farm, but all my records have been made in August-September visits. This may be significant, as at least two species of the mallees frequented are blossoming at that time. Also noted at the Humps on August 29, 1970.

Singing Honeyeater, *Meliphaga virescens*.—These birds are not particularly frequent in this area—they are usually outnumbered by at least three other honeyeaters—the Brown, the Tawny-crowned and the White-eared. They occur mainly in the mallee areas at Gibb Rock, in forest at the Humps and in roadside vegetation between Narembeen and Gibb Rock.

Yellow-plumed Honeyeater, *M. ornata*.—Recorded once, on August 29, 1971 in a few Wandoo (*Eucalyptus wandoo*) trees—the only large trees in a predominantly mallee area.

Purple-gaped Honeyeater, *M. cratitia*.—I located a flock of these birds in mallee adjacent to the farm on May 20, 1970 and re-located them on each subsequent visit until May 1972.

White-eared Honeyeater, *M. leucotis*.—This characteristic mallee species is fairly frequent in mallee on and adjacent to the farm and has been noted on all visits, including May 1972 when, due perhaps to drought conditions, few other birds were observed. This species occurs at Wave Rock also.

Brown-headed Honeyeater, *Meliphreptus brevirostris*.—Recorded fairly consistently in mallee areas.

Tawny-crowned Honeyeater, *Gliciphila melanops*.—Frequent and well-distributed in sand-plain areas. On the farm it has shown some tendency to persist in shelter belts and other remnants of native vegetation.

White-fronted Honeyeater, *Phylidonyris albifrons*.—Recorded on only one occasion, on May 20, 1970, in mallee just to the south of the farm.

Dusky Miner, *Manorhina flavigula*.—Not observed at "Sedgmoor", but birds have been observed between Narembeen and Gibb Rock and near the rabbit-proof fence between Gibb Rock and Holleton.

Red Wattle-bird, *Anthochaera carmenulata*.—First noted in the "Sedgmoor" area on September 3 1970, but they have not proved to be frequent. At the Humps, in forest, they are much more conspicuous. At Holleton, too, they occur in forest.

Magpie-lark, *Grallina cyanoleuca*.—Birds may be seen at Mt. Walker and I have one record for farmland north of Gibb Rock. M.C.S. saw one bird on the farm shed in April 1972, but it did not remain. A similar visit took place in early September 1972. The species occurs in forest at the Humps.

Black-faced Wood-Swallow, *Artamus cinereus*.—Wood-Swallows occur between Narembeen and Gibb Rock. Birds were first noted on the farm in August 1967. In May 1968 birds were present in an area being cleared and were active during burning operations. There are other more recent records.

Grey Currawong, *Strepera versicolor*.—Noted on our first visit to the farm block in March 1966 and thereafter recorded fairly frequently, singly or in parties of up to six, both on the farm and throughout the district.

Grey Butcher-bird, *Cracticus torquatus*.—First noted on the farm on March 28, 1967, when birds were seen mobbing a (probable) Brown Hawk. More recent records from or adjacent to "Sedgmoor" are mainly for mallee areas.

Pied Butcher-bird, *C. nigrogularis*.—Birds have not yet appeared on the farm, but have been noted in Hyden, at the Humps and at Mt. Walker.

Western Magpie, *Gymnorhina dorsalis*.—In March 1967, six birds were present on the farm frequenting the newly cleared area but, in our absence, entering the shed either for shade or to forage. Eight birds were noted in May 1967. Since that time a flock has occupied a rather large territory comprising at least the cleared area, now 800 hectares. In May 1972, fourteen birds were present and these may comprise two flocks of eight and of six respectively. The birds were at first very wary, but now some at least seem more confiding. Calls differ from those of our coastal birds—a distinct dialect.

Raven, *Corvus coronoides*.—*Corvus* are widely distributed through the area. Birds found dead on the road—three—have all proved to be *C. coronoides*, though some calls heard at "Sedgmoor" have suggested *C. bennetti*, which occurs, no doubt, in this area.

## NOTES ON THE HERBACEOUS VEGETATION OF THE EUCLA DISTRICT, W.A.

By B. M. J. HUSSEY, Mercedes College, Perth

### INTRODUCTION

A considerable amount of botanical collecting has been done around Eucla, but mostly in the months of June-September. I visited the area in May 1973, when the ground was covered with a prolific growth of ephemerals due to heavy rains some six weeks earlier.

Willis (1959) lists the larger plants of the area and Johnson and Baird (1970) provide annotated descriptions of plants found at Forrest, some 70 miles further inland. However I can find no readily available published information on the herbaceous flora and these short notes are intended to fit into that gap.

Willis (1959) has described the various plant associations of the area in full, but a brief description is necessary here in order to set the scene.

Apart from the Hampton Scarp, an old cliff-line that reaches the coast